Claims

I claim:

1. A fluid power circuit comprising:
a) a source of fluid flow at a first pressure;
b) a first valve means; and
c) a rotary flow divider;
wherein when said valve means is in a first position, said rotary flow divider is isolated from fluid flowing from said source of fluid flow and wherein said valve means has a second position wherein fluid flow from a first section of the rotary flow divider flows to a reservoir while fluid flow from a second section of the rotary flow divider exits the rotary flow divider at a second pressure, said second presure being higher than said first pressure.

2. The fluid power circuit of claim 1 wherein said second pressure is approximately twice said first pressure.

3. The fluid power circuit of claim 1 wherein said rotary flow divider includes a fluid inlet supplying fluid in substantially equal volumes to said first and said second sections.

4. The fluid power circuit of claim 1 wherein the fluid is hydraulic fluid.

5. The fluid power circuit of claim 1 including a driven circuit connected to an outlet of said second section such that said driven circuit can receive fluid at said first pressure when said valve is in said first position and said driven circuit can receive fluid at said second pressure when said valve is in said second position.

6. The fluid power circuit of claim 5 wherein the driven circuit includes at least one actuator.

7. The fluid power circuit of claim 6 further comprising a second valve enabling directional control of the at least one actuator.

8. The fluid power circuit of claim 1 wherein said first valve means is a solenoid operated, two position three way valve.

9. The fluid power circuit of claim 1 wherein said rotary flow divider is a gerotor rotary flow divider.

10. The fluid power circuit of claim 1 wherein a flow line from said at least one actuator serves as said reservoir.

11. A fluid power circuit comprising:
a) a source of fluid flow at a first pressure;
b) a valve means connected to said source of fluid flow;
c) a rotary flow divider;
d) an actuator connected to a fluid outlet of said rotary flow divider;
wherein said valve means includes a first position wherein substantially all the fluid flow is supplied to the actuator at the first pressure and a second position wherein a first portion of the fluid flow is diverted from said actuator and a remaining portion of said fluid flow is supplied to said actuator at a second pressure, said second pressure higher than said first pressure.

12. The fluid flow circuit of claim 11 wherein said first portion is diverted to a reservoir.

13. The fluid power circuit of claim 11 wherein the

source of fluid flow is a pump and wherein said first portion of said fluid is diverted to a low pressure return line to the inlet of said pump when said valve is in said second position.

14. A fluid power circuit comprising:
a rotary flow divider having an inlet connected to a source of hydraulic fluid under pressurized flow, said rotary flow divider having a first outlet connected to a low pressure means to return fluid to an inlet of said pump; said rotary flow divider including a second outlet connected to a driven circuit; said source of hydraulic pressure including a valve having a first position to selectively bypass said rotary flow divider to supply said hydraulic fluid directly to said driven circuit and a second position to supply hydraulic fluid to said rotary flow divider.

15. The fluid power circuit of claim 14 wherein fluid flow through said second outlet of said rotary flow divider is at a pressure higher than that supplied directly to the driven circuit when said valve is in said first position.